Religion and the Rise of Human Control:
Evidence for the Principle of Increased Self-Control

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Abstract

This paper explores the emergence and proliferation of religion in early human societies as a historical manifestation of the Principle of Increased Self-Control (PISC) — a metaphysical axiom positing that the universe is evolving toward maximal control by overcoming internal constraints and expanding its transformational capacity. While religion is traditionally studied as a sociocultural phenomenon or ethical system, we examine it here as an evolutionary catalyst that significantly enhanced humanity's ability to regulate its own behavior and manipulate its environment. By analyzing the dual role of religion in enabling deep internal constraint (via sacralized behavioral norms) and abstract modeling (via counterfactual reasoning and unverifiable belief systems), we argue that religion served as both a constraint amplifier and a cognitive engine in the realization of PISC. Through this lens, early religious systems are not merely belief structures but foundational control architectures that allowed humanity to scale its self-regulation, cooperation, and environmental mastery. The widespread emergence of religion across independent human populations is thus interpreted not as historical accident, but as necessary expression of a deeper cosmological drive. Ultimately, this paper positions religion as a test case for the validity of PISC and reinterprets early human history through the lens of metaphysical teleology grounded in the evolution of control.

1. Introduction

Throughout the history of science and philosophy, scholars have searched for underlying principles capable of explaining the direction of evolution — not only biological evolution, but the unfolding of complexity, intelligence, and civilization itself. Among the most ambitious of such principles is the Principle of Increased Self-Control (PISC): the hypothesis that the universe is evolving toward a state of maximal control, overcoming internal constraints to achieve a condition in which it can transform itself from any state into any other. In this framework, for all systems that make up the universe control is not limited to power over external conditions, but includes self-regulation, internal goal-attainment, and structural reorganization.

This paper investigates whether the emergence of religion — as a belief system rooted in unverifiable but structurally generative ideas — provides empirical evidence for the workings of PISC. We argue that religion played a pivotal role in enabling early humans to model unobservable, internalize abstract constraints, and coordinate large-scale behavior, thus becoming one of the most consequential mechanisms for increasing both internal and external control in the early trajectory of human civilization.

We begin by defining the Principle of Increased Self-Control and situating it within a hierarchy of sources for human traits: hereditary instincts, empirically learned behaviors, and beliefs derived from unverifiable postulates. From there, we examine the historical and cognitive origins of religion, emphasizing its function as both a disciplinary system and an imaginative model-builder. We show that religion not only enabled humans to delay gratification, stabilize long-term commitments, and sacralize restraint, but also initiated the counterfactual reasoning processes foundational to science, ethics, and civilizational planning.

Finally, we frame religion as a structure through which the universe, via its human subsystem, began to explore deeper models of self-transformation. We conclude that the spread and structural function of religion in early human societies provides strong, historically grounded evidence for the operation of PISC, and that the evolution of religious thought marks a threshold moment in the universe's drive toward increasingly abstract and powerful forms of self-control.

2. The Principle of Increased Self-Control (PISC)

At the core of this work lies the **Principle of Increased Self-Control** (Khachatryan, 2023) — a metaphysical axiom that postulates a directional tendency in the evolution of the universe. According to this principle, the universe is not merely expanding, cooling, or increasing in entropy; it is increasing its capacity for self-control. This increase is not random or incidental but structurally embedded in the nature of change itself. Every transformation, whether physical, biological, cognitive, or civilizational, is interpreted as part of an overarching cosmological trajectory toward higher control.

2.1 Definition of PISC

The universe is evolving to increase self-control. It strives to overcome any internal constraints and is changing itself to become as powerful as possible so that it gains an ability to attain any goal it sets for itself. The point of ultimate control towards which the universe is evolving is characterized by the ability to transform itself from any state into any other state. PISC is the single basic cause for all changes we have observed and will observe. It is global and universal.

This definition grounds PISC not in a physical force or observable process, but in a metaphysical pattern governing the behavior of systems across all scales.

2.2 Types of Control in Subsystems

PISC is a principle about the universe as a whole, but it operates through its subsystems, such as galaxies, lifeforms, civilizations, and most importantly for this study, humanity.

Each subsystem exhibits two distinct but interrelated forms of control:

- **Self-Control**: The subsystem's capacity to regulate its own behavior, suppress internal noise, coordinate goals, and preserve identity or coherence over time.

- **Control Over the Environment**: The subsystem's capacity to transform or manipulate aspects of the universe external to itself in order to increase its power, stability, or goal-attainment.

The environment of a subsystem is defined as the universe less the subsystem. Thus, what counts as environment is always relative to the system under analysis.

As subsystems evolve, they may lose control — collapse, regress, or fragment — but PISC holds that the aggregate control of the universe exhibits a clear trend for increase, even when the control for individual systems fluctuate widely.

This implies that local declines in control (e.g., extinction events, social collapses, conflict) are not violations of the principle but transitional phenomena. They may represent structural reconfigurations through which the universe reorganizes its subsystems to achieve higher overall control.

2.3 The Aggregation of Control

The self-control of the universe is understood as some aggregate function of the self-control and environmental control of its subsystems. This aggregation is not necessarily linear or additive — it may depend, among other things, on:

- The scale of the subsystem (e.g., a planetary civilization contributes more to global control than an isolated cell).
- The depth of modeling and the range of transformations the subsystem can produce.
- The interoperability of control — that is, how well a subsystem integrates its behavior with the dynamics of the environment.

Importantly, this aggregate is not static. Subsystems can:

- Cooperate or conflict,
- Specialize or generalize,
- Replicate, merge, self-modify, or annihilate other subsystems.

But across these variations, the total control available to the universe increases over time, in accordance with PISC.

2.4 The Directionality of Evolution Reinterpreted

In traditional scientific paradigms, the direction of evolution is often framed in terms of:

- Entropy maximization (thermodynamics),
- Fitness optimization (biology),
- Information processing (computation or complexity theory).

PISC proposes a **meta-principle** that can encompass these interpretations while offering a deeper teleological account:

The universe is not just getting more complex — it is getting better at controlling its complexity.

Thus, when early humans developed not only tools but tool-making cultures, not only emotions but ethical systems, and not only instinct but beliefs about invisible realities, these were not arbitrary innovations — they were leaps in control architecture.

As such, PISC is neither anthropocentric nor moralistic. It does not require that subsystems be "good," "rational," or "successful" in a local sense — only that the universe, as a whole, continues to increase its capacity to transform itself.

3. Three Hierarchical Sources of Human Practices and Traits

To analyze the historical emergence of religion — and to understand its function within the trajectory defined by the Principle of Increased Self-Control — we begin by distinguishing between three fundamental sources from which human behaviors, practices, and traits originate. These sources are not strictly separable in historical or individual development, but they represent a meaningful conceptual hierarchy of control-generating structures, ranging from biologically inherited traits to culturally transmitted, unverifiable belief systems. Each level contributes to humanity's evolving capacity for self-control and environmental manipulation — but with different degrees of flexibility, abstraction, and systemic impact.

3.1 Category 1: Hereditarian Origins (Biological Inheritance)

The lowest level of the hierarchy consists of hereditarian traits — characteristics and behaviors that emerge primarily from genetic inheritance and evolutionary selection pressures. These include:

- Kin selection
- Parental attachment
- Fear responses
- Empathy and emotional mirroring
- Basic reciprocity
- In-group preference

Such traits are not chosen, and they do not require learning or belief to manifest. They represent built-in control mechanisms shaped over millennia to promote survival, reproduction, and social cohesion within small groups.

While these traits serve as the biological substrate of human functioning, they are limited in scope. They rarely scale well to large populations or abstract goals. Moreover, their plasticity is

low — they can be suppressed or amplified, but not fundamentally restructured, without cultural or cognitive intervention.

3.2 Category 2: Empirical Learning (Shallow Science)

The second level consists of practices and behaviors learned through experience — what we may call shallow science. These include:

- Tool use and innovation based on trial and error
- Social customs developed through repeated interaction
- Recognition of correlational patterns (e.g., more prey appear near waterholes at dawn; certain plants are more abundant after rainfall)
- Recognition of causal regularities (e.g., rain follows clouds, meat spoils without fire)
- Early material technologies (agriculture, ceramics, navigation)

This layer allows for adaptation to changing environments and is highly valuable in refining local control. It represents a significant expansion of behavioral flexibility compared to inherited traits.

However, empirical learning is bound by the limits of observation. It cannot account for or model unobservable causes. It is correlational, not counterfactual. It also tends to be local, reactive, and incremental, rather than global, proactive, or visionary.

This category underlies the emergence of the scientific method in its earliest form — when humans observed patterns in nature and acted accordingly. But it cannot by itself generate long-range abstract modeling or motivational systems rooted in imagination.

3.3 Category 3: Derived from Unverifiable Beliefs (Deep Modeling)

The highest tier consists of practices and traits based on beliefs that are not empirically verifiable or falsifiable, yet still produce predictive, motivational, or organizational consequences. This is the realm of deep modeling — abstract, symbolic, and counterfactual reasoning that goes beyond lived experience.

Examples of Category 3 practices and traits include:

- Belief in invisible agents (e.g., gods, spirits, ancestors)
- Postulated unseen entities (e.g., spacetime, quantum fields, strings)
- Assumed unseen orders governing reality (e.g., karma, the afterlife, the Second Law of Thermodynamics)
- Mathematical systems grounded in unprovable axioms (e.g., Euclidean geometry, Peano arithmetic, set theory)
- Legal and ethical principles assumed to have universal authority (e.g., natural rights, social contracts, human dignity)
- Fictional and mythological world-building (e.g., epic narratives, constructed languages, imagined cosmologies)

- Speculative philosophical frameworks (e.g., Platonism, idealism, simulation theory)

Although such beliefs are not constrained by observational verification, they enable individuals and societies to model, coordinate, and project behavior in ways that are not possible through biological instincts or empirical observation alone.

Note: While Categories 1 and 2 are well-documented across a wide range of animal species, the practices and traits of Category 3 may not be uniquely human either. Certain species with sufficiently advanced cognition — such as great apes, elephants, cetaceans, and corvids — display behaviors that suggest symbolic reasoning, ritualized action, or internal modeling of invisible causes. Although such behaviors remain rare and poorly understood, they imply that all three categories of practice may exist in nonhuman systems, albeit at different levels of development or complexity.

Crucially, these beliefs do not depend on verification of their premises. They function as axioms in a cognitive system: assumed to be true not because of direct observation, but because they produce effective control structures — emotionally, behaviorally, and socially.

This is where religion originates, but it also lays the groundwork for philosophy, mathematics, and formal science, all of which rely on unprovable starting assumptions to generate testable implications.

Thus, Category 3 represents the birth of counterfactual modeling — the ability to reason not just about what *is*, but what *could be*, *ought to be*, or *must be assumed* in order to make the world intelligible and tractable.

Terminological Note:
The shorthand "deep modeling" captures the defining characteristic of practices and traits in Category 3: the construction of abstract, often unverifiable models that extend human cognition beyond immediate perception. Modeling — in myth, mathematics, philosophy, and religion — is a universal instrument of sense-making. Scientific modeling represents just one specialized form within this broader spectrum. To preserve continuity with the parallel term "shallow science" (used for Category 2), we may refer to a subset of Category 3 practices — those concerned specifically with the development of formal, axiomatic, or experimentally testable models — as instances of "deep science." Thus, "deep science" can be viewed as the rigorous, disciplined edge of the broader cognitive strategy we term deep modeling.

3.4 PISC as a Category 3 Theory: Modeling Through Unverifiable Belief

The Principle of Increased Self-Control belongs squarely within this third category. It is a derived belief that is unverifiable by empirical means yet offers a powerful explanatory framework for interpreting the evolution of the universe and the dynamics of human civilization.

- PISC does not present observable evidence for its premise (that the universe strives to increase control).
- Instead, it is judged by the fruitfulness of its implications: its ability to organize observed facts, generate novel hypotheses, and provide structural coherence to disparate domains (e.g., biology, society, cosmology).

This is precisely how deep scientific theories operate. Every such theory begins with assumptions that are not provable within the theory itself. What matters is whether the system of thought built on those assumptions generates verifiable consequences**,** predictive power**,** and conceptual clarity.

In this sense, PISC is not merely speculative. It is methodologically analogous to early religious cosmologies — not in content, but in structure. Like early theological systems, it posits an invisible driver behind all transformation (in this case, the drive toward control) and seeks to explain observed reality in light of this postulate.

Just as early religious belief systems allowed humans to model unobservable forces, PISC allows us to model the invisible architecture of systemic evolution. It is therefore not just compatible with the hierarchy of trait origins — it exemplifies its highest level.

Each of the three categories plays a distinct role in the progressive development of control across human history.

- Category 1 equips individuals with automatic behavioral predispositions that support short-term survival and basic social cohesion.
- Category 2 enables flexible responses to environmental feedback, allowing for cumulative learning and localized problem-solving.
- Category 3, by contrast, opens the door to large-scale, long-term, and structurally novel transformations of both self and environment — through the creation of internally coherent symbolic models that can guide behavior in the absence of direct experience.

Among the many forms that Category 3 thought has taken, religion appears historically as the first structured, culturally embedded system to make sustained use of deep modeling. It systematized belief in invisible causes, encoded normative principles, and offered symbolic maps of reality that were widely shared, emotionally charged, and socially enforceable. In this sense, religion stands as the earliest large-scale operating system for mobilizing the cognitive resources of Category 3 toward coordinated self-regulation and world-transformation — the very essence of what PISC describes as the universe increasing its control.

4. Religion as a Historical Catalyst for Control

Religion, in the framework used throughout this paper, is defined as *A system of beliefs that interprets invisible or transcendent realities as sources of agency, meaning, and guidance in human life*.

This definition applies across the entire spectrum of human history — from early animistic belief to highly organized theological systems. Religion is a Category 3 phenomenon, emerging from unverifiable beliefs but functioning as a mechanism of coordination, control, and symbolic modeling.

Religion occupies a unique place in the evolution of human civilization: it was the first structured system of deep modeling that not only unified symbolic imagination with motivational power but also produced scalable and durable effects on both internal self-regulation and external control of the environment. While religion is often studied in terms of belief content or ritual expression, its deeper historical significance lies in its function as a **control architecture**: a cognitive and cultural framework that enhanced the self-control of individuals and the collective power of societies.

From the standpoint of the Principle of Increased Self-Control, religion is not merely a cultural byproduct or a mythological placeholder for scientific ignorance. It is a structurally necessary and historically effective mechanism by which the universe — through its human subsystems — advanced its capacity for modeling itself, constraining its behavior, and transforming its conditions of existence.

4.1 The Emergence of Religion

The emergence of religion in early Homo sapiens likely occurred in multiple independent populations over tens of thousands of years. Its origins appear to be cognitively inevitable once humans evolved the capacities for:

- Decoupled cognition — the ability to mentally represent entities not present in the perceptual environment.
- Theory of mind — the modeling of other agents' beliefs and intentions.
- Causal inference — the search for causes behind events, especially threatening or mysterious ones.
- Symbolic memory and transmission — the sharing of stories, norms, and mental models across generations.

In environments where natural phenomena could not be reliably predicted or explained (e.g., droughts, disease, lightning), early humans responded by postulating unseen agents behind these forces. These agents — ancestors, spirits, deities — became anchor points in the first cosmological models. Their assumed intentions, desires, and punishments provided a structured way to guide behavior even in the absence of visible threat or immediate reward.

This marked a radical shift: instead of reacting only to observable stimuli, humans began to act in reference to invisible models — and to do so communally, ritually, and symbolically.

4.2 Internal Control: Restraining Impulses through Sacred Norms

One of religion's most consequential functions was the deep internalization of behavioral constraint.

Whereas inherited instincts and social customs could restrain behavior through immediate feedback (e.g., shame, punishment, exclusion), religion introduced a meta-layer of constraint:

- The self was now accountable to nonhuman or transcendent entities, often omniscient, punitive, or judgmental.
- Norms were not merely practical; they were sacred, inviolable, and absolute.
- Violations were not just errors but transgressions with metaphysical consequences (e.g., divine punishment, karmic decay, cosmic imbalance).

This allowed for invisible surveillance to replace physical enforcement. Individuals policed themselves — in thought, action, and desire — not out of fear of their peers, but fear of gods, spirits, or moral absolutes.

Such internalization was crucial for stabilizing long-term commitments**,** abstinence**,** altruism, and self-sacrifice — behaviors that may be maladaptive in the short term, but profoundly control-enhancing at the civilizational scale.

Religious fasting, celibacy, vows, rituals of purification, and moral discipline were not just signs of piety. They were self-modification techniques — culturally structured programs for redirecting biological impulses in service of symbolic goals. Similarly, practices such as prayer, meditation, and yoga functioned as internal training regimes, cultivating attentional control, emotional regulation, delayed gratification, and a sense of alignment with higher or transcendent patterns. These practices stabilized mental states, disciplined bodily behavior, and often supported long-term planning, renunciation, or self-transcendence. In doing so, they contributed powerfully to the growth of self-control as a dynamic, trainable capacity, rather than a fixed trait.

4.3 External Control: Religion and the Birth of Abstract Modeling

Beyond shaping internal behavior, religion played a pivotal role in enabling humans to construct abstract models of reality — models that could be symbolically manipulated, socially shared, and ritually enacted.

This modeling function:

- Gave humans the cognitive tools to map causes to consequences even when those causes were not observable.
- Allowed for conceptual compression of large-scale complexity into mythic narratives, cosmologies, and sacred laws.
- Enabled the generation of long-range predictions, even when derived from unverifiable axioms.

These religious models of reality — although not empirically falsifiable — served as frameworks for coordination: they aligned expectations, explained suffering, justified action, and oriented societies toward long-term, often intergenerational goals.

In doing so, religion laid the epistemic groundwork for the later emergence of science. It normalized the practice of:

- Postulating invisible realities with structural consequences.
- Deducing behavioral implications from axiomatic beliefs.
- Testing the outcomes of those beliefs against lived experience, even when the beliefs themselves could not be verified.

In this sense, religion was the precursor to deep science: the first large-scale system to derive control-yielding behavior from unverifiable but strategically chosen models. Further details on religion being a precursor to science can be found in Appendix.

5. Religion as a Dual Control System

As demonstrated in the previous section, religion historically contributed to both internal behavioral discipline and external environmental mastery. But these two domains of control should not be viewed in isolation. The true power of religion — as an evolutionary mechanism and a metaphysical structure — lies in its ability to integrate the two into a single system of meaning and regulation. It is this integration that made religion the first dual control architecture in the history of the human subsystem, and a uniquely potent expression of the Principle of Increased Self-Control.

5.1 Interdependency of Internal and External Control

The internal and external control functions of religion are not separate applications of the same belief system — they are structurally coupled. The moral discipline required by religious teachings (fasting, abstinence, prayer, ritual precision) was not just for the sake of piety; it was embedded in models of how the world worked. If the gods controlled the rains, then human conduct could influence the weather. If ritual purity affected divine favor, then internal behavior became causal in external outcomes.

This loop between self-restraint and environmental consequence created a powerful feedback system:

- Self-control was rewarded not only socially, but cosmologically.
- Moral failure could trigger illness, disaster, or divine retribution — not just personal misfortune.

This model created an instrumental reason for self-discipline, amplifying internal control while simultaneously embedding it in a shared theory of causality. It aligned subjective conduct with objective conditions, long before the emergence of empirical science or formal governance.

5.2 Scaling Control through Shared Symbolic Models

Religion also allowed the integration of individual self-control into group-level coordination, enabling large populations to act in sync across time and space. Sacred texts, mythologies, rituals, and moral laws were not merely cultural ornaments — they were symbolic protocols for distributed control.

These symbolic systems:

- Encoded behavioral norms in narrative form.
- Linked cosmic meaning to mundane action, increasing compliance and memory.
- Enabled intergenerational transmission of self-regulating behaviors.
- Created anticipatory models: by predicting divine outcomes, people adjusted behavior in advance of observable feedback.

This capability for long-range symbolic prediction is central to the external control function of religion — but it depends entirely on internal compliance. The two are not parallel; they are synergistic.

Religion, therefore, functioned as a recursive model of control:

- It modeled how humans should act,
- How the world would respond,
- And then used that model to reinforce how humans should continue to act.

In doing so, it stabilized complex, multi-scale behaviors that would have been impossible to achieve through instinct or empirical feedback alone.

5.3 Prefiguring Modern Control Architectures

In its dual capacity, religion prefigured the design principles of modern control systems, later articulated and extensively developed in the field of **cybernetics**:

- Feedback loops.
- Predictive modeling.
- Distributed enforcement.
- Symbolic compression of large behavioral rulesets.

The transition from religious cosmology to formal scientific models was not a discontinuity, but an evolution of control modeling from one symbolic register to another. What changed was not the function — to guide action and shape outcomes — but the criteria for model evaluation: from divine consistency to empirical coherence.

This shift illustrates how religion was not replaced by science but rather gave rise to an offspring — a deeper, more abstract mode of modeling, capable of decoupling belief from intuition while preserving the control dynamics first forged in religious systems.

5.4 Religion as the Bridge Between Emotion, Narrative, and Reason

Religion's historical potency lies in its ability to synthesize three domains that are rarely aligned in other control systems: emotion**,** narrative, and reason. It bound deep affective impulses (fear, hope, awe), structured them through culturally transmitted stories, and embedded them in models of invisible agency and cosmic law. In doing so, it functioned as a bridge between pre-rational emotion and post-rational abstraction, stabilizing behaviors that would otherwise be volatile, inconsistent, or unsustainable. This unique integrative capacity explains not only religion's pervasiveness, but also its persistence — and why it became the first large-scale symbolic system capable of sustaining intergenerational control.

6. Conflict, Cooperation, and the Realization of PISC

6.1 Subsystems in Tension: The Role of Conflict in Evolutionary Control

In the framework of the Principle of Increased Self-Control, the evolution of the universe proceeds through the dynamics of its subsystems — such as biological organisms, social structures, or ideational systems — as they pursue greater capacity to regulate themselves and influence their environments. These subsystems do not evolve in isolation. Their development occurs within interactive fields of tension, competition, and cooperation, which generate the conditions for selective restructuring. Among these forces, **conflict** plays a particularly visible and paradoxically generative role.

From the standpoint of PISC, conflict is not a moral failure, but a recurrent mechanism through which constraints are revealed, challenged, and reorganized. Subsystems often encounter one another with incompatible goals, models, or strategies for control.

Each subsystem perceives such lack of alignment as constraints on its "sphere of influence," i.e., its ability to change the environment as it sees fit. Such tensions force subsystems to adapt or risk collapse.

Successful adaptations lead to increased control over the environment. But they also require self-change. The subsystem transforms itself into a state that it was not able to reach earlier and, in the process, learns how to do it. Its self-control increases.

Thus, the universe's overall self-control increases when those subsystems capable of adaptive modeling, restructuring, and strategic convergence survive and refine themselves under pressure.

Religion has historically been a powerful generator of such subsystem tension. Far from operating in a vacuum, religious systems frequently entered into conflict with other religions, emerging scientific paradigms, political institutions, or rival moral codes. These conflicts were often violent — manifesting in wars, persecutions, and doctrinal schisms — but they were also deeply formative. They forced the symbolic systems involved to:

- Clarify and formalize their internal logic,
- Codify previously ambiguous principles,
- Construct institutions for resilience and transmission,
- Refine their capacity to mobilize followers and assert interpretive control.

Historical examples abound:

- The conflict between early Christianity and Roman imperial authority accelerated the development of legal theology, church hierarchy, and doctrinal clarity — including the formulation of creeds that would govern belief across vast geographic regions.
- The Protestant Reformation shattered ecclesiastical monopoly, but in doing so led to the systematization of doctrine, the invention of printing-based religious communication, and the rise of modern statecraft through new religious-political alliances.
- The clashes between Islamic rationalist schools (e.g., Mu'tazilites) and traditionalists produced both the philosophical synthesis of Aristotelian thought and Qur'anic exegesis, as well as legal schools (madhhabs) that stabilized Islamic jurisprudence across the empire.
- Even intra-religious conflicts such as Buddhist schisms produced refinements in metaphysics, ethics, and institutional frameworks (e.g., the emergence of Mahayana).

In all these cases, conflict functioned as a pressure mechanism that forced religious systems to rearticulate their principles, extend their symbolic reach, and deepen their organizational capacities.

Thus, while conflict among subsystems often appears destructive at the local level, from the perspective of PISC, it is **instrumentally necessary** to the universe's drive toward increasing self-control. It accelerates systemic selection and transformation. Subsystems that cannot evolve under pressure — that cannot revise their models, balance competing demands, or absorb shocks — are not aligned with the directional logic of PISC. Those that do become vehicles of its realization.

6.2 Constructive Antagonism: Conflict as a Control Amplifier

Not all conflicts destroy. Some amplify control by forcing systems to refine their models, increase their internal coherence, and extend their symbolic reach. Within the framework of PISC, such conflicts are best understood not merely as competitions for dominance but as engines of structural clarification and expansion. They compel subsystems to confront their limitations, sharpen their architecture, and innovate at the edge of contradiction.

Religious history provides repeated examples of this constructive antagonism. Even when originating in doctrinal disputes, theological rifts often yielded significant innovation in symbolic modeling, institutional architecture, and ethical complexity.

Example: The Protestant Reformation
Initially a challenge to the Catholic Church's authority and theology, the Reformation triggered a complete reorganization of religious, political, and economic life in Europe. Competing

Protestant sects developed new models of biblical authority, ecclesiastical governance, and individual responsibility. In response, the Catholic Church underwent its own internal reforms (e.g., the Council of Trent), producing a more centralized, doctrine-driven, and education-oriented global institution. The result was not just fragmentation but a dual system refinement, where each side increased its control capacity through adaptive redefinition.

Example: Islamic intellectual disputes
Debates between rationalist and traditionalist schools led to innovations in logic, theology, and jurisprudence. The tension between reason and revelation in Islam produced sophisticated attempts to reconcile divine omnipotence with human agency — a challenge that sharpened the conceptual tools of Islamic metaphysics and legal philosophy. Rather than dissolving into incoherence, the clash led to more durable, pluralistic control systems that could govern vast territories while accommodating interpretive diversity.

These cases illustrate how religious conflict often functions as a symbolic trial — a forced encounter between competing models of reality, each attempting to demonstrate greater fidelity to truth, coherence, or divine order. From the perspective of PISC, these trials are valuable not because they establish permanent winners, but because they push systems beyond their previous limits.

Constructive antagonism also increases semantic precision. Systems under pressure must define their concepts more clearly, draw finer moral distinctions, and articulate more persuasive claims to authority. Ambiguity is no longer tolerable when challenged. This leads to the development of structured theology, scholastic traditions, canon law, and systematic ritual design — all of which are instruments of control at both the cognitive and collective levels.

Moreover, the challenge of competing systems often forces the invention of new modes of communication and dissemination. The Reformation, for instance, catalyzed the use of vernacular languages, mass printing, and public education — thereby extending the subsystem's reach into a larger portion of its environment. In this way, conflict not only strengthens internal coherence, but also extends environmental influence, aligning with both facets of PISC.

Conflict, then, is not merely a Darwinian selection pressure. It is a cognitive catalyst. It generates conditions under which a symbolic system must evolve new models, test its own boundaries, and become more internally ordered and more externally effective.

While conflict can devastate local systems — collapsing institutions, extinguishing lineages, or suppressing specific doctrines — its global function within PISC is **generative**. It acts as an information-sorting mechanism, testing which models can withstand pressure, reorganize under threat, or scale across different contexts. In this view, conflict does not merely select for strength or popularity, but for adaptive generalizability — the ability of a system to survive internal contradiction, external challenge, and epistemic instability. From the perspective of the

universe's increasing self-control, this global sorting effect is not collateral damage but a strategic filter through which more resilient symbolic systems emerge.

6.3 Cooperation as an Equally Foundational Mechanism

While conflict reveals, stresses, and reorders subsystems through direct confrontation, cooperation enables the stabilization and scaling of control architectures through alignment, integration, and symbolic convergence. In the context of PISC, cooperation is not a passive or secondary process — it is a primary mode of increasing control, especially when symbolic systems must coordinate across time, geography, and complexity.

In biological and social evolution alike, cooperation allows for the construction of larger, more stable structures that would collapse under purely competitive dynamics. Control systems built on cooperation are not necessarily harmonious or egalitarian — they may be hierarchical, ritualized, and rule-bound — but they bind diverse subsystems into integrated wholes, thereby increasing both self-regulation and environmental mastery.

Religion has historically served as one of the most effective engines of cooperative control expansion, doing so by:

- Aligning belief systems across kin groups, tribes, and linguistic boundaries.
- Imposing shared symbolic languages (e.g., sacred texts, calendars, liturgies).
- Transcending genetic self-interest through moral universalism (e.g., love of neighbor, charity to strangers).
- Establishing reputational economies that reward long-term trust, reciprocity, and collective identity.

For example, the Buddhist monastic networks that spread across Asia during the first millennium CE were not militarily enforced, but relied on shared doctrinal commitments, mutual recognition of authority, and standardized symbolic practices. These facilitated cooperation between far-flung communities with little in common except adherence to a common system of belief and discipline.

Similarly, the Islamic waqf system (charitable endowments) created durable intergenerational institutions — schools, hospitals, public works — through cooperative commitments rooted in religious obligation, not contractual enforcement. These systems extended environmental control by stabilizing material infrastructure through symbolic duty.

In the Catholic Church, the use of Latin liturgy, universal canon law, and clerical hierarchy enabled a sprawling and often politically fragmented continent to share a unified symbolic framework. This symbolic cohesion supported diplomatic protocols, intellectual exchange, and even the preservation of knowledge during civilizational transitions.

These examples demonstrate that religion not only amplified individual self-restraint but also created durable pathways for symbolic coordination — a form of control that is hard to achieve through law or force alone. Where conflict may expose weaknesses and force change, cooperation absorbs difference and channels it into structured alignment.

Cooperation also promotes symbolic compression and cognitive efficiency. By reducing the number of models needed to predict others' behavior, cooperative systems lower the cost of navigation in complex social environments. Religious rituals, shared myths, and sacred calendars provide predictable scaffolds for individual and collective action. This predictability increases the internal coherence of the system and enhances its ability to model, anticipate, and respond to environmental fluctuations.

Crucially, cooperation is also a vehicle for moral innovation and ethical scaling. Systems that previously operated within kin-based or ethnocentric boundaries can, through shared sacred principles, reframe identity in terms of abstract ideals. The emergence of doctrines like human equality before God or the sanctity of all life allowed control systems to expand across tribal and geographic divisions, creating moral superstructures capable of sustaining higher levels of coordination.

Thus, from the perspective of PISC, cooperation is not the opposite of conflict, but its **complement**. It is the mode through which successful subsystems consolidate, scale, and stabilize their increased capacity for control. Without it, no gains from conflict could be preserved; with it, the universe's subsystems become more coherent, predictive, and transformable — advancing the very self-control that PISC describes.

6.4 Conflict and Cooperation as Complementary Realizations of PISC

To understand the Principle of Increased Self-Control as a cosmological dynamic, one must see that conflict and cooperation are not opposites. They are interwoven modalities of transformation, both essential to the universe's process of refining, scaling, and consolidating control. In the evolutionary history of symbolic systems — and religion in particular — we find not a linear path toward harmony or hierarchy, but a **rhythmic alternation** between destabilizing antagonism and stabilizing integration.

Conflict disrupts, exposes, and fragments, while cooperation binds, aligns, and scales. Yet each process requires the other to fulfill its function. Without conflict, control systems grow brittle, complacent, or dogmatic; without cooperation, they fragment, fail to persist, or lose the ability to extend their influence. From the standpoint of PISC, the interaction between these forces constitutes a kind of **adaptive oscillation**, in which subsystems cycle through phases of tension and convergence in pursuit of greater structural capacity and control fidelity.

Religious history offers numerous examples of this dialectic pattern:

- The conflicts between priestly and prophetic traditions in ancient Israel — and later between Pharisees and Sadducees during the Second Temple period — catalyzed enduring changes in Jewish religious structure. These tensions produced new models of ritual authority, ethical centrality, and textual interpretation, eventually contributing to the emergence of Rabbinic Judaism, which stabilized the tradition through legal codification (halakha), interpretive pluralism, and educational networks.
- The spread of early Islam involved both military conquest and intertribal conflict, followed by the consolidation of a transethnic religious identity through shared legal, linguistic, and ritual systems.
- The Buddhist doctrinal schisms that gave rise to Mahayana and Theravāda schools were later resolved in the form of shared ethical commitments, ritual frameworks, and cross-sectarian institutions.

These cycles of rupture and re-composition are not failures or side-effects — they are the very substrate of long-term control evolution. Conflict sharpens symbolic systems and purges incoherence; cooperation preserves, transmits, and extends their function over time and scale.

This dynamic can be modeled as a **self-regulating loop** in which:

1. Antagonism identifies internal constraints or environmental misalignments.
2. Adaptive restructuring enables the subsystem to survive the pressure.
3. Symbolic integration consolidates the gains.
4. The newly stabilized system eventually encounters new contradictions — and the cycle renews.

Seen in this light, the history of religion — and of any symbolic control system — is not a history of decay or transcendence, but of iterative realignment, driven by the tension between these two polarities.

PISC, therefore, is not realized by eliminating conflict or suppressing diversity, but by harnessing the creative energy of opposition and combining it with the stabilizing architecture of cooperation. This dual movement produces systems that are both more internally self-regulated and more effective in controlling their environment.

It is in the interplay between rupture and synthesis — between schism and convergence — that we see the signature pattern of the universe striving to increase its self-control.

Across evolutionary timescales, the universe's subsystems do not increase control through stability alone, nor through disruption alone, but through their ability to cycle between these dynamics. As we have seen, religion exemplifies this pattern vividly: it has generated profound internal conflict, catalyzed structural reorganization, and enabled unprecedented symbolic

cooperation. Through these dual mechanisms, it has served as both a site of destabilization and a scaffold for durable coordination — not alternately, but simultaneously.

From the standpoint of PISC, the systems that endure are not those that suppress opposition, nor those that pursue unity at the cost of structure. They are those that can model tension, integrate contradiction, and evolve architectures that absorb difference without disintegration. These systems emerge not merely stronger, but more internally organized, more symbolically expressive, and more environmentally effective — i.e., more controlled, and more controlling.

In this sense, conflict and cooperation are not forces acting on symbolic systems from the outside. They are intrinsic to how systems realize their own transformation. And through them, the universe — as a totality of interacting subsystems — incrementally increases its capacity to transform itself, **from within**.

That is the signature of self-control. And that is the path traced, again and again, through the evolution of religion.

7. Reframing Early Human History through PISC

Human prehistory is often described in terms of survival challenges, tool use, environmental pressures, and biological adaptations. But when seen through the lens of PISC, a deeper and more unifying pattern emerges: the steady growth of the human subsystem's ability to regulate itself, shape its environment, and coordinate over time and scale. This transformation was not simply the product of rational planning or genetic drift — it was driven by the emergence of symbolic systems, among which religion played a uniquely catalytic role.

7.1 Early Human Violence, Ritual, and Belief as Control Mechanisms

Before the emergence of religion, human societies were marked by relatively high levels of lethal interpersonal and intergroup violence, as inferred from archaeological and ethnographic evidence. The absence of codified norms, the volatility of dominance hierarchies, and the fragmentation of group identities made early human life precarious. These conditions reflected the low self-control of the human subsystem at the time — not merely in the behavioral sense, but in the structural sense: limited internal coordination, weak long-term planning, and poor ability to model or constrain the causes of internal collapse.

The introduction of ritual practice**,** symbolic belief, and normative obligation began to shift this balance. Early religious behaviors — such as burial rites, sacrificial rituals, taboos, and spirit appeasement — served to internalize constraints and externalize symbolic models that stabilized social life. These practices imposed delays on impulse, rules on violence, and predictability in group behavior. Importantly, they were enforced not through direct coercion, but through belief in unseen consequences — a control mechanism far more scalable than physical enforcement alone.

In PISC terms, these changes mark a major inflection point: a shift from behavioral reactiveness to symbolically mediated self-regulation. Rather than simply reacting to threats, early human societies began to simulate threats**,** ritualize their response, and impose shared models of action — all of which increased both their internal stability and their control over environmental unpredictability.

7.2 Religion as a Scaffold for Scaling Intentionality and Coordination

Perhaps the most important role played by religion in early human history was its function as a structural scaffold for expanding **shared intentionality** across large groups. Genetic kinship and direct reciprocity are limited in scope; beyond small-scale communities, they quickly become fragile. Religion introduced a symbolic superstructure — often centered around gods, ancestors, moral laws, or cosmological orders — that allowed unrelated individuals to align their behavior under a common framework of meaning and obligation.

This capacity for symbolic coordination enabled:

- Group-scale synchronization through ritual calendars and collective rites,
- Intergenerational continuity through oral tradition and sacred memory,
- **A**bstract social identities (e.g., believers, chosen people, the pure) that transcended biology,
- Shared futures (e.g., paradise, judgment, cosmic renewal) that motivated sustained cooperation.

These were not just social functions. They were early expressions of PISC: mechanisms by which the universe, through the symbolic activity of humans, learned to coordinate future-directed change**,** stabilize group dynamics**,** and project intention beyond immediate perception.

This symbolic infrastructure allowed for the emergence of large, resilient societies that could plan over decades, build surplus economies, and respond adaptively to environmental complexity. In short, religion allowed early humans to move from short-term survival to **long-term transformation** — a hallmark of increased self-control.

7.3 The Pervasiveness of Religion and Religious Conflict as PISC Manifestations

Why is religion so **universally present** in early human cultures? Why does it emerge independently in virtually all geographic regions, and why does it take on structurally similar forms — with ritual, sacrifice, taboo, myth, moral law, and symbolic cosmologies?

From the PISC perspective, this pervasiveness is not a coincidence. It reflects the **inevitability** of religion as a control-enhancing innovation. Once symbolic modeling of invisible agents emerged, its utility in scaling behavioral constraint and enabling coordination became unmatched. Any human group that adopted religious symbolic systems gained an evolutionary

advantage — not by supernatural intervention, but through better control of both themselves and their environment.

Religious conflict, too, reflects the logic of PISC. Competing models of symbolic control cannot always coexist peacefully. Their contradictions become structural constraints on one another's symbolic coherence and environmental reach. As we saw in Section 6, such tensions catalyze refinement, consolidation, and scaling — not just destruction. The persistence of religion, and the intensity of its conflicts, are not signs of irrationality, but of its foundational role in shaping how the human subsystem evolves under pressure.

In this light, early religion appears not as a primitive delusion but as a self-organizing strategy — **the first true control framework** by which a biological species began to act in symbolic alignment with imagined futures, normatively stabilized models, and long-range transformation. It was through religion that the human subsystem took its first major leap toward functioning as a coherent, self-regulating, and future-oriented subsystem within the broader universe.

8. The Unique Function of Religion in Cosmic Evolution

The Principle of Increased Self-Control describes the universe as evolving toward greater capacity for self-regulation and transformation. Subsystems that emerge within it — biological, cognitive, cultural — either contribute to this trajectory or become irrelevant. Religion, as we have seen, did far more than support other functions of human evolution. It was a **primary driver** of increased self-control, both for individual humans and for humanity as a whole. Its emergence marks a turning point: the moment when the universe, through a symbolic species, developed a scalable architecture for goal-oriented internal modeling and constraint alignment.

8.1 Not Just a Multiplier, But a Primary Enabler

Throughout this document, we have acknowledged that many human capacities — empathy, reciprocity, memory, social learning — existed prior to religion and would have persisted without it. But religion did something qualitatively different: it bound these traits into coherent symbolic systems, gave them narrative form**,** normative weight, and long-term direction. It did not simply amplify self-control; it restructured its foundation by aligning emotion, identity, and obligation around shared unseen models.

This transformation allowed humanity to:

- Stabilize norms across generations,
- Coordinate behavior at scale,
- Embed abstract goals (salvation, purity, cosmic justice) into individual motivation,
- Simulate invisible consequences, and act accordingly.

These are not marginal enhancements. They are essential ingredients in the transition from reactive survival to symbolically modeled transformation — the core function of PISC at the cultural level.

Without religion, there would have been no mechanism in early human history capable of:

- Imposing deep constraint internalization without surveillance,
- Binding diverse individuals into ideologically coherent communities,
- Motivating long-range behavior on the basis of unverifiable premises.

8.2 The Counterfactual: A World Without Religion

Had religion never emerged — had humans never begun modeling invisible agency or anchoring behavior in sacred obligation — the course of evolution would likely have diverged sharply.

Such a world might have exhibited:

- Chronic fragmentation of social systems, due to a lack of shared symbolic glue,
- Weaker restraint on violence and impulsivity, especially in the absence of law enforcement infrastructure,
- Shallow coordination horizons, limited to kin-based trust and observable incentive structures,
- Collapse of large-scale cooperation in the absence of moral universals or transcendent purposes.

While it is possible that other symbolic systems might have eventually evolved to fill this void, it is unclear whether they could have emerged early enough — or with sufficient motivational power — to stabilize human social life across vast time and space. The cost of delay in developing scalable constraint systems might have included civilizational stagnation, repeated collapse, or extinction through internal incoherence.

Without religion, humanity might have lost access to several crucial forms of symbolic control:

- Deep constraint internalization: the ability to police one's own behavior in private, without enforcement.
- Long-term goal alignment: the practice of sacrificing short-term gains for imagined future states of existential value.
- Existential motivation: the belief that life is embedded in a cosmic order, and that personal action matters beyond its immediate effects.
- Intergenerational coherence: the transfer of values, structures, and models that endure despite environmental upheaval.

Each of these functions — while technically replaceable in theory — found their first powerful, durable, and scalable realization in religion. And it is this first realization that matters most in cosmic evolution: because it was religion that made **the leap from local coordination to globally shared symbolic self-control** possible for a species.

8.3 Religion as Cosmological Evidence for PISC

In this sense, the emergence of religion is not simply compatible with the Principle of Increased Self-Control — it is **empirical evidence** of its operation. When viewed across evolutionary timescales, religion appears not as a side effect of cognitive error, but as the earliest large-scale control technology built from symbolic abstraction. Through it, the universe — via human minds — discovered a new way to model itself, bind itself, and redirect its own evolution.

No other development in early human history so completely unifies constraint, prediction, imagination, and identity under one architecture. And no other symbolic system came earlier, with such global regularity, such durability, and such catalytic power.

Religion was the first proof that a human system could become more than what it was — by imagining what it could become.

9. Conclusion: Religion and the Self-Control of the Universe

Religion is often treated as a historical curiosity, a social adhesive, or a failed attempt at scientific explanation. But viewed through the lens of the Principle of Increased Self-Control (PISC), religion takes on a radically different significance. It appears not as a deviation from rational development, but as one of the universe's most effective early mechanisms for increasing the self-control of a complex subsystem — humanity.

From its earliest emergence in Paleolithic symbolic thought to its institutional refinement in world religions, religion functioned as a dual control architecture. It shaped behavior by fusing invisible premises with visible consequences. It generated **predictive models** that guided individuals and groups toward stability, cooperation, and long-range transformation. And it did so by developing a structure — belief → behavior → feedback → belief revision — that closely mirrors the logic of modern control systems and deep scientific reasoning.

PISC holds that the universe evolves by overcoming internal constraints, gradually increasing its capacity to transform itself. This is not a linear process, nor a moral one. It proceeds through conflict and cooperation, construction and collapse, as subsystems reorganize themselves in pursuit of greater self-direction.

Religion contributed to this process in three fundamental ways:

1. Internally, by training individuals to regulate impulses, delay gratification, and bind themselves to symbolic obligations.
2. Externally, by coordinating large-scale collective behavior across time, geography, and genetic boundaries.
3. Epistemologically, by pioneering symbolic systems that operated on counterfactual premises — and testing them through their practical, not empirical, consequences.

In all three domains, religion served as both a control amplifier and a modeling engine. It enabled human beings — and eventually human societies — to act as if they could influence the unseen, and in doing so, became more effective agents of change in the seen.

The metaphysical implication is profound: if the universe is indeed evolving toward increased self-control, then the emergence of religion marks a critical inflection point. It represents the moment when a biological subsystem — humanity — began not just to survive, but to model, to internalize, and to symbolically anticipate its own transformations. That capacity, once born, never disappeared. It matured into ethics, politics, philosophy, and science. But its origin remains rooted in the religious imagination: the first domain in which the universe, through us, learned to reflect, to simulate, and to choose.

This is not a defense of religion's truth-claims or its moral record. It is a recognition that religion, like language, law, and logic, is one of the scaffolds by which the universe began to steer itself. In that sense, religion is not an accidental byproduct of human evolution. It is evidence of the very process PISC describes: the universe becoming increasingly able to model itself, regulate itself, and transform itself — from within.

Appendix: Religion as a Precursor to Deep Scientific Modeling

By examining religion through the lens of the Principle of Increased Self-Control (PISC), we have seen that its historical role extends far beyond social cohesion or mythic storytelling. Religion served as the first large-scale symbolic system that could simultaneously guide internal self-regulation and external world-modeling through shared, unverifiable belief structures. In doing so, it laid the cognitive and epistemological foundation for a different kind of transformation — the emergence of what we now recognize as **deep scientific modeling**.

7.1 The Use of Counterfactual and Axiomatic Reasoning

Religion introduced a way of thinking that was detached from immediate experience and grounded instead in assumed invisible realities: gods, spirits, karmic laws, sacred obligations, afterlives. These were not derived from empirical observation, but from counterfactual imagination — the ability to ask "What if?" and construct systems of action around the answers.

For instance, the idea that moral actions could affect harvests or weather assumed a structure of causality that was not visible or testable — yet it produced behavioral regularity and predictive expectations, the core functions of a model.

This mirrors the logic of **axiomatic scientific systems**, which begin not with data but with foundational assumptions — Newtonian laws, space-time postulates, quantum fields — and derive consequences from them.

Religion introduced and normalized this form of belief-structured modeling, in which truths were evaluated not by sensory verification, but by explanatory power**,** coherence, and pragmatic alignment with action. These are the same standards by which deep scientific theories are assessed.

7.2 The Separation of Premises from Verification

Another key legacy of religion is the decoupling of epistemic foundations from direct empirical validation. Ancient priesthoods, prophets, and mystics built complex symbolic systems that governed vast communities — often for centuries — based on truths that could not be falsified.

Yet these truths were still instrumentally validated: prayers were answered or not; rituals produced harmony or disorder; omens were interpreted with consequences. In this sense, religious systems **pioneered the method of testing predictions derived from unverifiable premises**, a hallmark of modern theoretical science.

Just as scientists now construct models with unproven axioms and evaluate them by their predictive power and internal consistency, religious traditions offered the first large-scale rehearsal of this method.

7.3 Institutional Transmission of Modeling Practices

Religious institutions — temples, monasteries, rabbinical academies, and theological schools — were also the first to preserve, transmit, and refine symbolic modeling systems over generations.

They developed:

- Canonical texts and interpretive traditions,
- Standardized logical forms (e.g., syllogistic reasoning in scholasticism, dialectic in Talmudic study),
- Doctrinal review systems and exegesis protocols.

These laid the groundwork for:

- Peer review,
- Rational consistency checks,
- And formal methods of justification — all essential to scientific institutions today.

Moreover, they fostered long-term memory structures in which knowledge could be refined incrementally, rather than reinvented with each generation. This stabilized symbolic modeling as a self-correcting and self-expanding epistemic form — another precondition for deep science.

7.4 Symbolic Abstraction as a Control Technology

At its core, deep science is not a rejection of symbolic systems like religion but an evolutionary refinement of their architecture. Both rely on:

- Abstract representation of reality,
- Codification of predictive systems, and
- Prescriptive guidance for action.

The crucial shift came in the evaluation criteria: science demands empirical coherence, reproducibility, and logical precision — but the structural logic remains strikingly similar.

Religion's contribution, then, was not the introduction of superstition, but the first large-scale training in symbolic abstraction. It taught humanity how to:

- Think beyond the visible,
- Act based on counterfactual premises,
- Align collective behavior with symbolic structures, and
- Iterate belief systems across generations.

In this sense, religion functioned as a prototypical control technology — one that expanded the self-control of individuals and collectives by linking imagination to structure, narrative to obligation, and belief to behavior.